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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,470	09/03/2004	Dominique Mariaulle	0502-1019	8949

466 7590 07/17/2006

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EXAMINER

DONAHOE, CASEY D

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/506,470	Applicant(s) MARIAULLE ET AL.	
	Examiner Casey Donahoe	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) 3,8,9,12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,10,11,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/3/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: "stops 24a and 34b" (page 5, line 13) should be changed to stops 24a and 24b".

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).

- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The headings of (f)-(i) should be incorporated into the specification.

Claim Objections

Claim 1 is objected to because of the following informalities: "irrigation line" (line 1) should be changed to the plural. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4-7, 10, 11, 14, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 claims a singular compression element of which can be alternately applied by a control means, being the sliding element to each of the flexible tubes. However, neither of compression elements (34a, 34b) can be alternately applied to both of the flexible tubes (4a, 4b). Thus, it is unclear what Applicant is trying to claim.

Furthermore, claim 1 only claims a switching device *for* irrigation line[s] and not the entire system comprising the actual irrigation lines, flasks, handpiece, or peristaltic pump. Thus, it becomes unclear as to whether limitations regarding these elements are

Art Unit: 3732

to be considered. Either these limitations must be removed from the claims or the claim preamble must be altered to recite the entire system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coss et al. (US 5,733,117) in view of Taylor et al. (US 2,985,192).

Coss et al. discloses a setup for delivering a sterile fluid from a flask (11) to a dental handpiece (3) via an expansion type peristaltic pump (18). Coss et al. fail to disclose a fluid switching device. However, it is well known that dental applications may require multiple fluids to perform certain operations, for which standard dental handpieces may not be equipped to supply. It would, thus, be easier to supply multiple fluid flasks and a fluid switching device rather than use an expensive and complicated dental handpiece. Taylor et al. discloses a double pinch valve including two stops, or compression elements (3, 4) arranged at respective ends of a sliding element and capable of occupying either a position of flow or position of blocking, in which the stop compresses a tube (1, 2) against a counter-stop (13, 14). The device is arranged so that when one compression element is released the other is already squeezed. That is,

one is located in the blocking position before the other is released. It would have been obvious to one of ordinary skill in the art at the time of the invention to insert the fluid switching device disclosed by Taylor et al. before the peristaltic pump disclosed by Coss et al. in order that at least two fluid sources may be connected to the standard dental handpiece, thus expanding the capability of the handpiece in a simple and inexpensive way. Coss et al. also fail to disclose that the peristaltic pump is driven by a stepping motor, but it is well known in the art to use such motors to drive peristaltic pumps in order to produce discrete pulses.

Claims 6, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coss et al. in view of Goda (US 3,918,490).

Coss et al. discloses a setup for delivering a sterile fluid from a flask (11) to a dental handpiece (3) via an expansion type peristaltic pump (18). Coss et al. fail to disclose a fluid switching device. However, it is well known that dental applications may require multiple fluids to perform certain operations, for which standard dental handpieces may not be equipped to supply. It would, thus, be easier to supply multiple fluid flasks and a fluid switching device rather than use an expensive and complicated dental handpiece. Goda discloses a fluid switching device including a single roller-type compression element (50), which rolls into different positions to either block both of the tubes (41, 42) or a single one of them. It would have been obvious to one of ordinary skill in the art at the time of the invention to insert the fluid switching device disclosed by Goda before the peristaltic pump disclosed by Coss et al. in order that at least two fluid

Art Unit: 3732

sources may be connected to the standard dental handpiece, thus expanding the capability of the handpiece in a simple and inexpensive way. Coss et al. also fail to disclose that the peristaltic pump is driven by a stepping motor, but it is well known in the art to use such motors to drive peristaltic pumps in order to produce discrete pulses.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Hanover et al. (US 4,484,599), Oates, Sr. et al. (US 4,328,834), Mannes (US 4,585,442), Bergmann (US 4,259,985), Alton (US 3,578,885), Doi et al. (US 6,589,197), Yoshii et al. (US 5,188,334), Schechter et al. (US 5,643,304), Douvas et al. (US 4,168,707), Wright et al. (US 4,702,733), and Lamas et al. (US 2002/0162590).

Art Unit: 3732

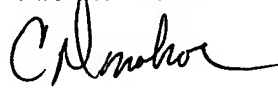
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272 -4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ralph A. Lewis
Primary Examiner
Au 3732

Casey Donahoe
Examiner
Art Unit 3732


7/12/2006